

and could be considered identical cohorts with similar pain intensity. For the evaluation of dose developments mean daily dosages of the first and last prescribed patches were calculated and compared. **RESULTS:** In all patients, the prescribed mean daily doses increased during therapy. However, this increase was more pronounced in patients on TD fentanyl treatment. The mean percentile intra-individual increases per day in cancer patients were up to 0.42% and 0.17% in the TD fentanyl and TD buprenorphine patients, respectively, and in non-cancer patients to 0.25% for TD fentanyl and 0.09% for TD buprenorphine. The higher dose increase in TD fentanyl patients was statistically significant ($p < 0.0001$) and could not be explained by co-medication or titration. **CONCLUSIONS:** The analyses were conducted on identical cohort patients with similar pain intensity, expecting similar drug utilization patterns for TD buprenorphine and TD fentanyl. The lower increase of the mean daily doses in TD buprenorphine patients suggests a higher tolerance development with TD fentanyl compared to TD buprenorphine.

PPN7

CONFIRMATORY FACTOR ANALYSIS OF THE BECK DEPRESSION INVENTORY

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OBJECTIVE: To determine the factor structure of the Beck Depression Inventory (BDI) in a chronic pain population. The factor structure will be discussed in the context of assessing depression in pain. **METHODS:** The BDI was administered to a convenience sample of 128 patients who had experienced pain for a duration of at least three-months. The BDI is a 21 item instrument; however, for the purposes of this study one item assessing suicidal ideation was deleted. Confirmatory factor analysis using maximum likelihood estimation techniques were run for several published factor structures of the BDI that have been evaluated in pain patients. **RESULTS:** The average score on the BDI for this sample was 20.54 (s.d. = 8.8). Based on a single factor score, 25% ($n = 32$), 23.4% ($n = 30$), 14.1% ($n = 18$) and 1.6% ($n = 2$) of the sample was classified with borderline clinical depression, moderate depression, severe depression, and extreme depression respectively. Results from the factor analysis suggest that various two and three factor solutions provide adequate fit to the data. A two factor solution comprising items that reflect negative view of the self and impaired physical function provided best fit to the data. The chi-square statistic calculated for this model was 75.45 based on 64 degrees of freedom ($p = 0.15$). Patients provided low scores on the negative view of self factor (mean = 4.39, s.d. = 3.65) and high scores on the impaired physical function factor (mean = 9.12, s.d. = 3.44). **CONCLUSION:** Pain has a significant negative impact on a variety of functions. However, pain patients do not exhibit the cognitive biases displayed by patients diagnosed with major depressive disorder.

PPN8

DEVELOPMENT OF DIFFERENT LANGUAGE VERSIONS OF A US BACK PAIN QUESTIONNAIRE

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OBJECTIVES: Measuring back pain for further clinical research required the linguistic validation of a nine-item questionnaire

developed in US English. Based on the assumption that the original concepts were universally appropriate, we aimed to develop language versions of a US back pain questionnaire according to a rigorous methodology to ensure the conceptual equivalence between the original and the translations. **METHODS:** The process was conducted by a specialist in each target country using the following standardized methodology: 1) two forward translations by professional translators, native speakers of the target language and fluent in English; 2) comparison and reconciliation of the translations by the specialist in the target country and the translators; 3) backward translation by a native English speaker; 4) comparison of source and backward version; and 5) comprehension test on five individuals suffering from back pain and review by one clinician. **RESULTS:** Issues regarding the universal appropriateness of the original concepts emerged during the creation of the 35 language versions. Items investigating the respondent's ability to get in and out of his car had to be reformulated in countries where the ownership of cars was rare. Similarly for countries in which people did not wear socks or stockings an alternative question had to be found. **CONCLUSION:** The 35 language versions were established according to a rigorous translation methodology. The process ensured the conceptual equivalence of all language versions to facilitate the international comparison and pooling of data. This process also reveals that the original concepts are not necessarily universally appropriate. This indicates the necessity to integrate international feedback on concepts before the original questionnaire is finalized to facilitate the cross-cultural equivalence of concepts.

PPN9

SEVERE PAIN IN PERSONS WHO RECEIVED HOSPICE CARE IN THE UNITED STATES (US)

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OBJECTIVE: Pain in persons at the end of life has not yet been well described. The purpose of this study is to describe the occurrence of severe pain among persons who received hospice care in the US. **METHODS:** Data for this study were derived from a database developed by excelleRx Incorporated, which provides pharmacy services to US hospices. The excelleRx database includes demographic and clinical data for persons during the period from February 1, 2000—July 26, 2004. Worst pain intensity during the previous 24 hours is assessed using a zero—ten numeric rating scale (NRS; zero = none, ten = worst) by hospice nurses periodically during a person's hospice admission. **RESULTS:** Of 326,737 persons who received hospice care in 419 US hospices during the study period, severe pain (NRS seven—ten) was reported at least once by 20.3% of persons with at least one pain score. Of these individuals, mean age of persons who died during hospice care was 68.9 years (median 70.7, SD 14.4), median length of service was 42.0 days, 53.7% were female, 78.0% were Caucasian, 7.4% were cared for in LTC hospices, and 73.9% had a primary diagnosis of cancer. Within the subset of persons who reported severe pain and were treated in a long-term-care hospice, 66.8% were female, 78.1% were Caucasian, and 47.6% had a primary diagnosis of cancer. **CONCLUSION:** Severe pain was reported at least once by a substantial percentage of persons in this cohort, of those individuals cared for in long-term-care facilities, and of persons with a primary diagnosis of cancer. These data provide insight into improving the care of persons at the end of life.